SEQL | SUSTAINABLE ENVIRONMENT for QUALITY of LIFE

Integrated Environmental Initiative for the Central Carolinas Region

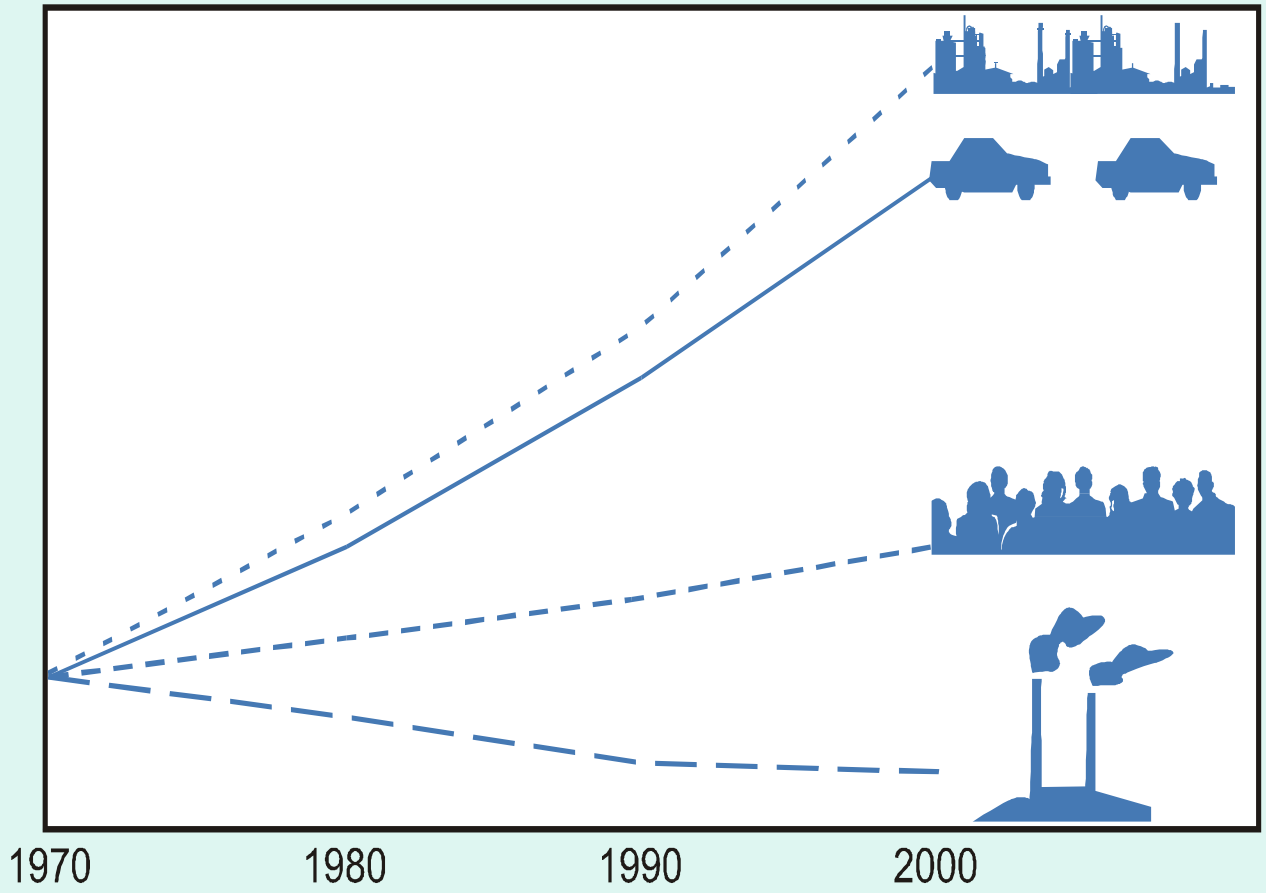
ReVA-MAIA Conference

May 15, 2003

SEQL is a multi-governmental partnership

- EPA (Research & Development, Air and Radiation, Region IV)
- NC Dept. of Environment & Natural Resources
- SC Dept. of Health & Environmental Conservation
- Local governments in Centralina/Catawba Regions

Great Success on Clean Air Across the U.S.



U.S. Gross Domestic Product Increased 160%

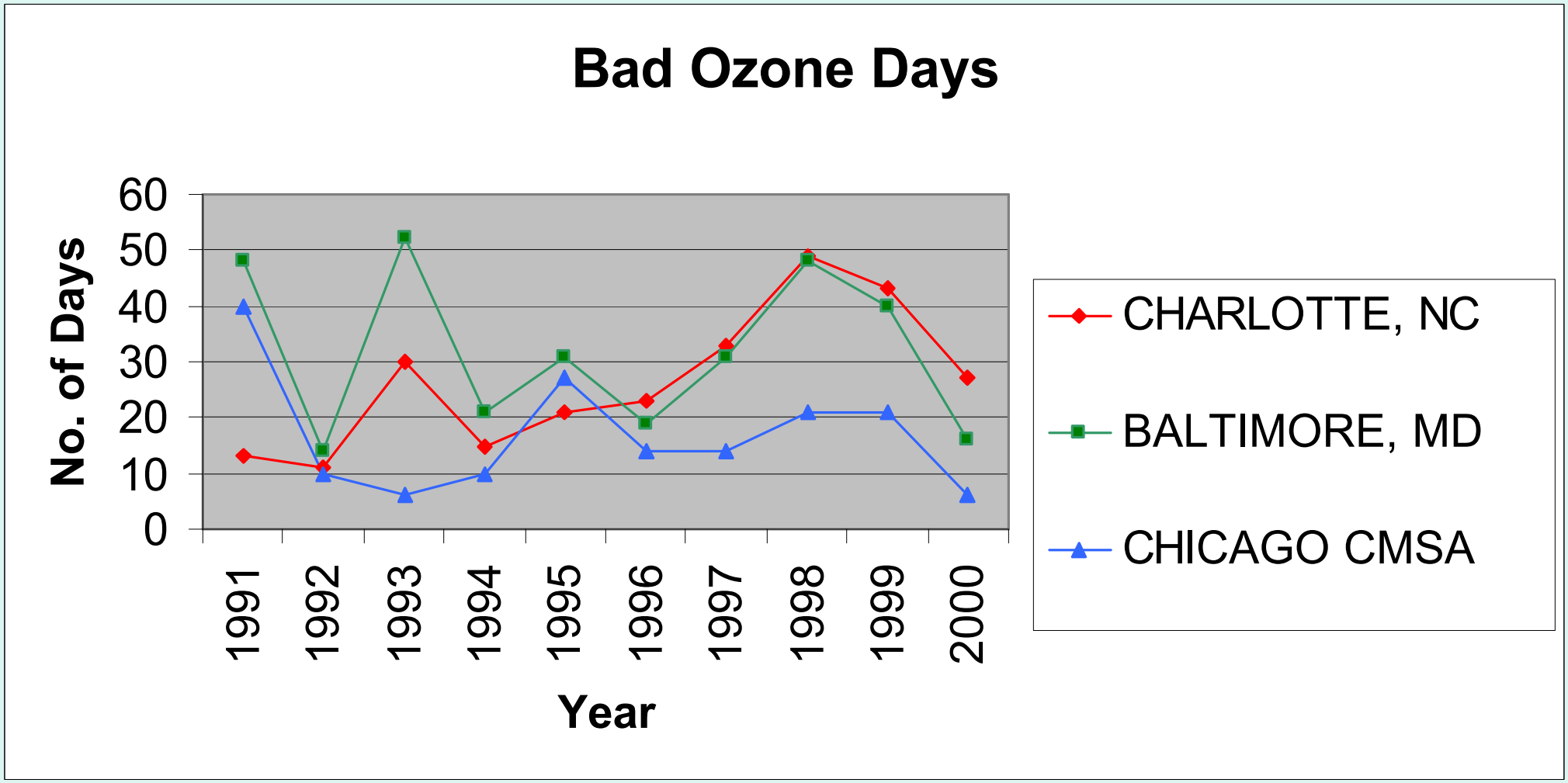
Vehicle Miles Traveled Increased 143%

U.S. Population Increased 36%

Aggregate Emissions Decreased 29%
(Six Principal Pollutants)

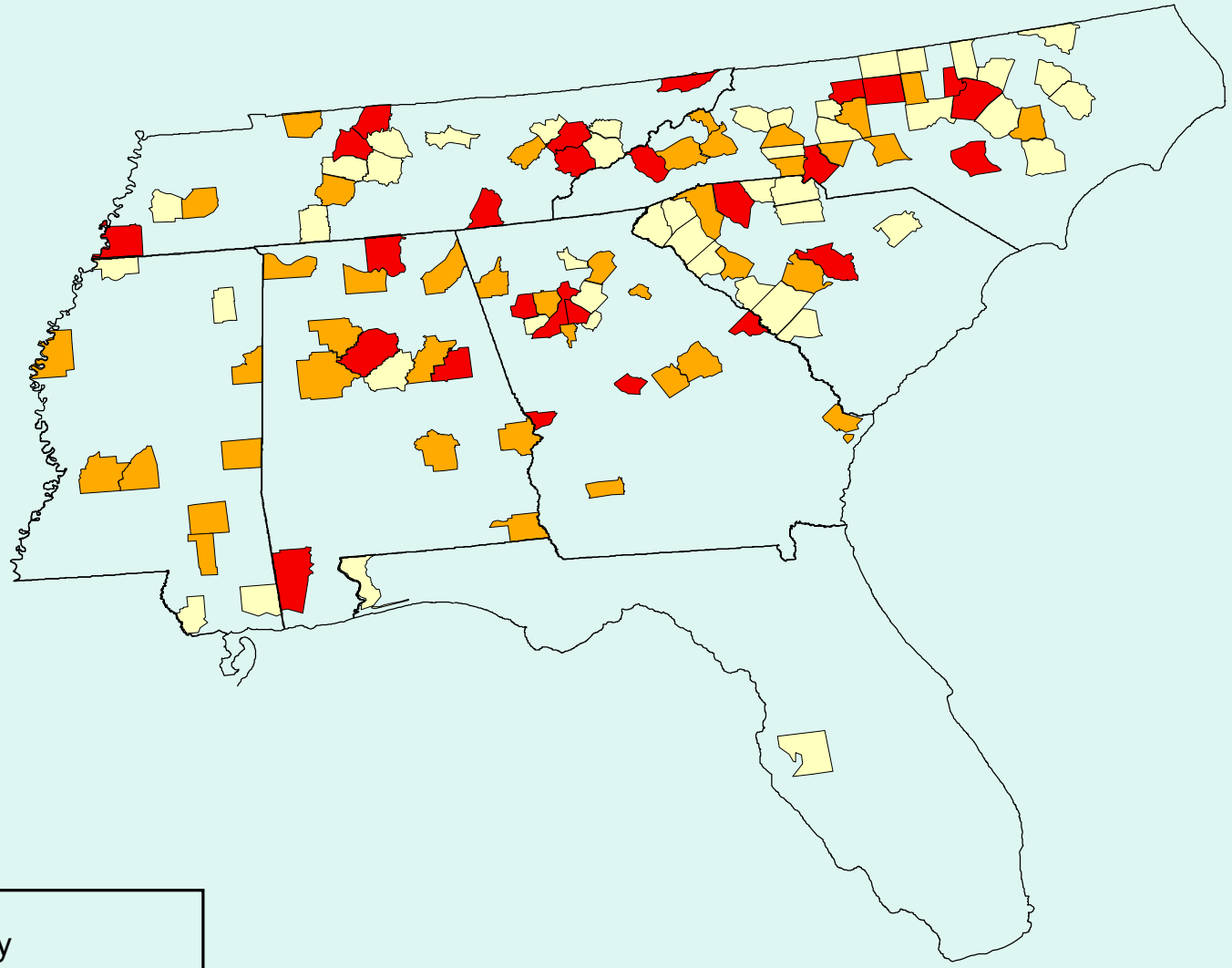
Source: *Latest Findings on National Air Quality: 2000 Status and Trends*, 2001, EPA 454/K-01-002)

Bad Ozone Days (8-hr Standard)



Source: *EPA's Aerometric Information Retrieval System (AIRS)*

Areas Currently* Exceeding 8-hour Ozone and PM2.5 NAAQS in the Southeast



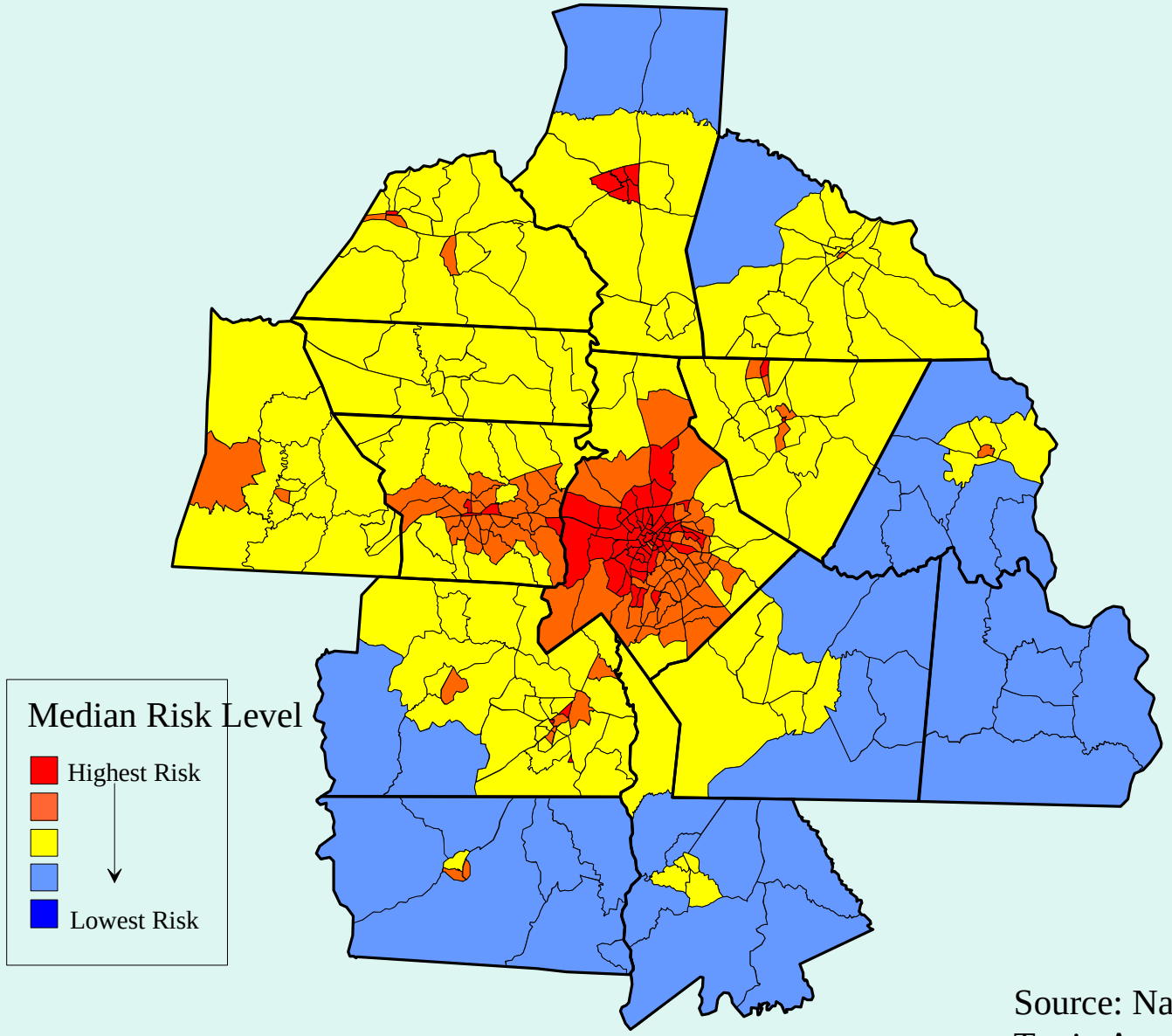
Ozone only

PM2.5 only

Both ozone and PM2.5

*1997-1999 Ozone
1999/2000 PM2.5 - preliminary depiction based on two years of data. Three years of complete data are required for attainment demonstrations.

Central Carolinas Region: Predicted Cancer Risk Due to Air Toxics



Source: National Air Toxic Assessment, EPA 2002

Why is this happening?

- Federal and State agencies can regulate classes of sources, but not metropolitan growth or individual behaviors
- National and State gains are eroded by growth in population and motor vehicles
  - Planning is not in synch for different pollutants
  - Minimal integration across energy, land use, and economic development

What SEQL is seeking

- Regionally-endorsed environmental initiatives
- Ongoing regional integrated environmental planning . . . and action
- Institutionalized environmental considerations in local and regional decision making

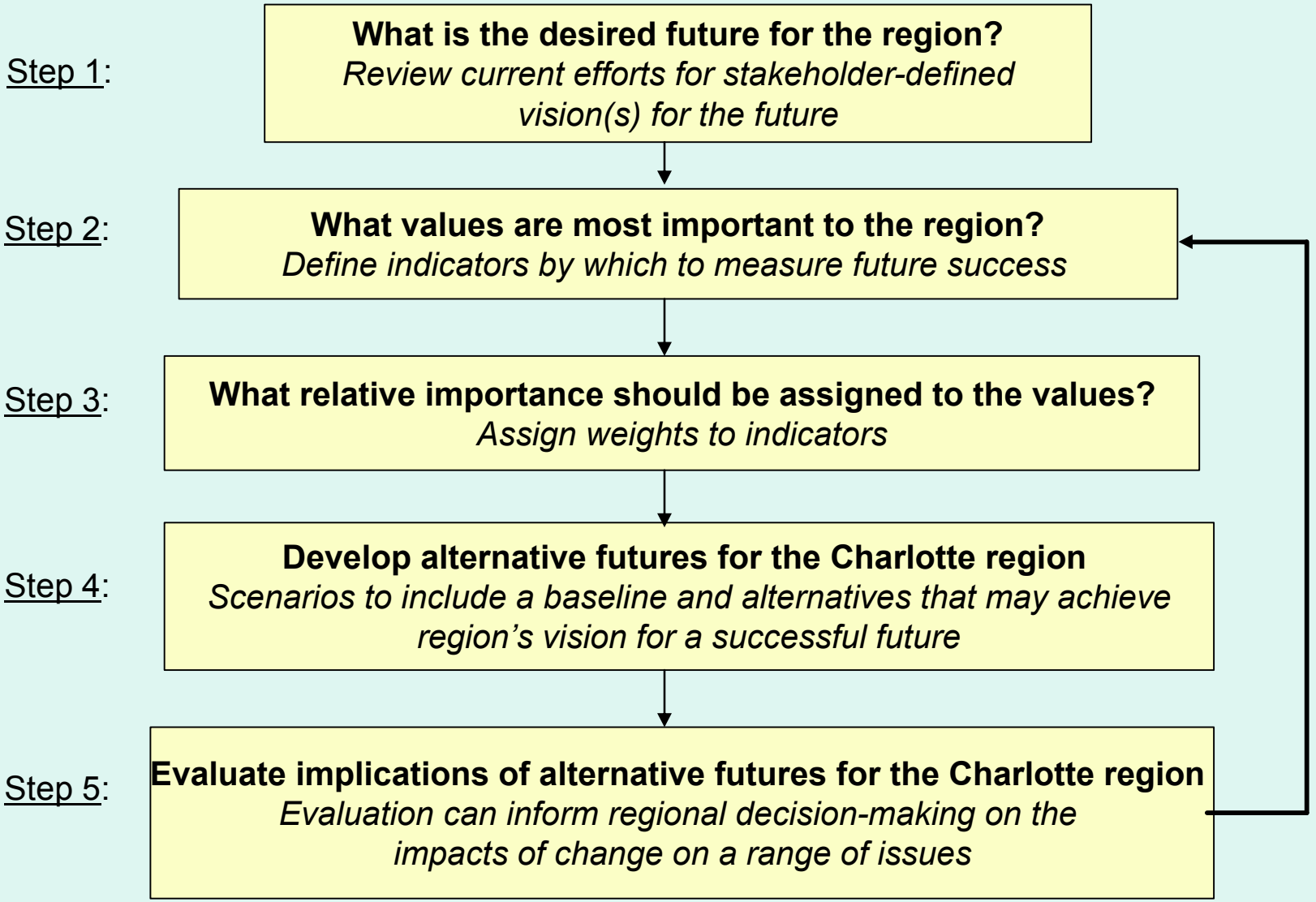
How SEQL is proceeding

- Build a body of evidence to support paradigm shift
  - Document the problems
- Establish regional context to allow impact analyses
  - Show how each jurisdiction impacts neighbors
- Provide positive reinforcement for political action
  - Show cumulative effects, return on investment, optimized actions

General Approach

- EPA, States and regional parties work together to
  - Identify critical quality of life indicators responding to all relevant sectors
  - Assess combinations of actions and growth scenarios identified by participants to respond to each sector
  - Help to identify optimal combination(s) based on total benefit to the region

Steps for Evaluating Alternative Futures for the Region



ReVA Scenario Evaluations

- Iteration #1: Basic Charlotte/Rock Hill example for participant orientation purposes
- Use publicly, readily available data
  - Land use data
  - Census data
  - TRI data
- What could it show
  - Examples of how we can assess and display current status and future projections of important indicators

ReVA Scenario Evaluations

- Iteration #2: Portray current and projected future situation based on current policies and direction
- Use existing data available from different sources in region and States
- Establish bases for evaluating alternative futures by showing likely impacts of no change in current policies and practices

ReVA Scenario Evaluations

- Iteration #3: Complete future scenario evaluation using SEQL-derived alternatives
- Use data generated from new analyses not available for iteration #1, e.g.,
  - Projections of land use and transportation changes
  - Air quality modeling results
  - Air toxics risk information
- Show impacts of different policy choices on region's future and how results might differ based on alternative weighting

Current Status

- Developing data system and baseline data
- Engaging environmental and business groups
- Compiling educational materials and information on other air projects
- Developing general public education campaign
- Seeking to identify regulatory and legislative enabling actions

Schedule of Activities

- Phase 1 - Education and selection of initial measures: March 2001 – September 2002
- Phase 2 - Begin to implement measures and establish baselines: February 2003 – September 2003
- Phase 3 - Develop integrated strategies: October 2003 – September 2005